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EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT PAPER NUMBER

2615

DATE MAILED: 11/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/652,730

Applicant(s)
Boyle et al

Examiner
Christopher Onuaku

Art Unit
2615



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1-3,5-9,11,19,20,22-25,27&29 are rejected under 35 U.S.C. 102(e) as being anticipated by Candelore (US 6,298,400).

Regarding claim 1, Candelore discloses in Fig.1,2&3 a method and apparatus for enhancing interface between a host and a point of deployment (POD) module having parallel signal paths carrying parallel signals of a transport stream, comprising:

a) at least one recorder interface connectable to an auxiliary interface (see Fig.1, digital recorder/player 140 connected to at least program data receiver 110 (which includes a set-top box 210, see Fig.2 and digital receiver 210); col.2, lines 37-41 and col.4, lines 50-53), here for the digital recorder/player 140 to be connected to the program data receiver 110, the program data receiver 110 must inherently include an interface means and the digital recorder/player 140 must

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also inherently include an interface means, and here examiner reads the program data receiver 110 interface as an auxiliary interface, since the claimed auxiliary interface is not specifically defined;

b) a storage device (see Fig.1 and digital video recorder/player 140 which includes recording medium; col.3, lines 8-20);

c) an electronic program guide subsystem connected to the recorder interface to receive the electronic program guide information from the set-top box and to process the electronic program guide information to schedule recording the broadcast audiovisual data on the storage device (see Fig.2, CPU 212 of the set-top 210 which supports graphic user interface such as electronic program guide to allow a user to navigate through various channels and program options to select a desired channel or program for viewing, listening or recording; col.3, lines 54-62; digital video recorder/player 140 which includes recording medium; col.3, lines 8-20, which is coupled to the program data receiver 210 of the program data receiver 110 via transmission medium 120 of Fig.1 and is capable of recording analog or digital audio, video and data transmissions, including program data received and transmitted by the program data receiver 110 of Fig.1).

Regarding claim 2, Candelore discloses wherein the electronic program guide subsystem comprises an electronic program guide processor (see Fig.2, CPU 212; col.3, lines 54-62), here examiner reads the CPU 212 as the electronic program guide processor since the CPU 212 supports graphic user interface such as electronic program guide to allow a user to navigate

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through various channels and program options to select a desired channel or program for viewing, listening or recording.

Regarding claim 3, Candelore discloses wherein the electronic program guide subsystem further comprises an electronic program guide manager (see Fig.2, CPU 212; col.3, lines 54-62), here examiner reads the CPU 212 as the electronic program guide manager since the CPU 212 supports graphic user interface such as electronic program guide to allow a user to navigate through various channels and program options to select a desired channel or program for viewing, listening or recording.

Regarding claim 5, Candelore discloses wherein the electronic program guide subsystem is configured to present processed electronic program guide information to a user (see Fig.2, CPU 212; col.3, lines 54-62), here the CPU 212 supports graphic user interface such as electronic program guide to allow a user to navigate through various channels and program options to select a desired channel or program for viewing, listening or recording.

Regarding claim 6, Candelore discloses wherein the digital video recorder receives the electronic program guide (EPG) information and broadcast audiovisual data from a single source (see Fig.1&2, digital video recorder/player 140 and set-top box (STB) 210 of program data receiver 110; col.3, lines 8-19 and col.3, lines 54-62), here the STB 210 supports EPG to allow a

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user to select a desired channel or program for viewing, listening or recording, and Candelore processes broadcast audiovisual signals.

Regarding claim 7, Candelore discloses wherein the single source is the set-top box (see Fig.1&2, set-top box 210 of the program data receiver 110 col.3, lines 8-19 and col.3, lines 54-62).

Regarding claim 8, Candelore discloses wherein the digital video recorder receives the electronic program guide (EPG) information and broadcast audiovisual data from a single interface (see Fig.1&2, set-top box 210 of the program data receiver 110 and digital video recorder/player 140; col.3, lines 8-28 and col.3, lines 54-62), examiner reads the single interface from which the recorder receives (EPG) information as the set-top interface (auxiliary) that connects the set-top box 210 of the program data receiver 110 to the recorder 140.

Regarding claim 9, Candelore discloses wherein the digital video recorder receives the electronic program guide (EPG) information as a component of one or more channels of the broadcast audiovisual data (see Fig.1&2, set-top box 210 of the program data receiver 110 and disk recording unit 140; col.3, lines 8-28 and col.3, lines 54-62).

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Regarding claim 11, Candelore discloses wherein the EPG subsystem is configured to receive EPG information selectively transmitted by the set-top box via the auxiliary interface and the recorder interface (see col.3, lines 8-28 and col.3, lines 54-62), here the CPU 212 of the set-top box 210 may support EPG to allow a user to navigate through various channels and program options to select a desired channel or program for recording, for example.

Regarding claim 19, the claimed limitations of claim 19 are accommodated in the discussions of claim 1 above.

Regarding claim 20, Candelore discloses wherein the EPG processing device comprises a digital video recorder (see Fig.1&2, digital video recorder/player 140; col.3, lines 8-28 and col.3, lines 54-62).

Regarding claim 22, the claimed limitations of claim 19 are accommodated in the discussions of claim 1 above, except recognizing the connection of the digital video recorder to the set-top box, which is inherent in the Candelore EPG system in order for Candelore EPG system to function efficiently, whereby the set-top 210 communicates with the digital video recorder 140 which facilitates the user recording of desired broadcast programs.

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Regarding claim 23, Candelore discloses wherein the EPG information and broadcast audiovisual data are transmitted to the set-top box from a single source (see Fig.1&2; set-top box 210 of the program data receiver 110; col.2, lines 38-67; col.3, lines 8-28 and col.3, lines 54-62).here in the EPG system of Candelore, program data (audiovisual) is received by the program data receiver 110 (i.e., the set-top box 210 through the set-top 210 interface (single source).

Regarding claim 24, Candelore discloses wherein the EPG information and broadcast audiovisual data are received by an input interface of the set-top box source (see Fig.1&2, set-top box 210 of the program data receiver 110; col.2, lines 38-67; col.3, lines 8-28 and col.3, lines 54-62).here in the EPG system of Candelore, program data (audiovisual) is received by the program data receiver 110 (i.e., the set-top box 210 through the set-top 210 interface-input interface).

Regarding claim 25, Candelore discloses wherein the EPG information is included in the broadcast audiovisual data (see col.2, lines 38-67; col.3, lines 8-28 and col.3, lines 54-62), here, the EPG allows a user to navigate through various channels and program options to select a desired program (audiovisual program) for viewing or recording, for example.

Regarding claim 27, the claimed limitations of claim 27 are accommodated in the discussions of claim 11 above.

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Regarding claim 29, Candelore discloses wherein the transmitting of EPG information from the set-top box is performed selectively in response to user input (see col.3, lines 54-62)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4&30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Ellis et al (US 5,760,821)..

Regarding claim 4, Candelore fails to explicitly disclose wherein the electronic program guide subsystem further comprises an electronic program guide storage buffer to store the electronic program guide information. Ellis et al teach in Fig.1&2 a system and method for "localizing" a national electronic program guide (EPG) schedule to filter out schedule information not relevant to a viewer's service environment comprising set-top box storage means (EPG's memory) 56; col.3, lines 30-38; col.4, lines 36-40). EPG storage means provides the desirable advantage of storing EPG information for later use. It would have been obvious to modify Candelore by realizing Candelore with EPG storage means, as taught by Ellis, so that Candelore can store EPG information for later use.

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Regarding claim 30, the claimed limitations of claim 30 are accommodated in the discussions of claim 4 above.

5. Claims 10,12,26&28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Dunn et al (US 5,648,824)..

Regarding claim 10, Candelore fails to explicitly disclose wherein the electronic program guide (EPG) subsystem is configured to receive updated EPG information from the set-top box, where the set-top box is configured to detect updated EPG information. Dunn teaches in Fig.2, video control user interfaces used in interactive television systems, and methods for operating an interactive television system and controlling viewing of video movies on a television, comprising set-top box 36 (I), database 52 and electronic program guide system, wherein the database 52 stores program descriptive information used to update the EPG (see Fig.2; col.3, line 54 to col.4, line 65). Updating EPG information provides the desirable advantage of deleting old programs in the EPG and adding new and current programs into the EPG to keep the EPG information current and up-to-date, thereby enhancing the quality of the EPG information for the user.

It would have been obvious to modify Candelore by realizing Candelore with the means to update the EPG information of the EPG system of Candelore, as taught by Dunn, since updating EPG information provides the desirable advantage of deleting old programs in the EPG and adding new and current programs into the EPG to keep the EPG information current and up-to-date, thereby enhancing the quality of the EPG information for the user.

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With Candelore modified with the EPG updating means of Dunn, it would have been obvious to adapt the EPG system of Candelore to detect the updated EPG information, since updating EPG information provides the desirable advantage of deleting old programs in the EPG and adding new and current programs into the EPG to keep the EPG information current and up-to-date, thereby enhancing the quality of the EPG information for the user.

Regarding claim 12, Candelore fails to explicitly disclose wherein the EPG subsystem is configured to transmit a request signal to the set-top box, where the set-top box is configured to selectively transmit the EPG information to the EPG subsystem in response to the request signal. Dunn further teaches wherein a household may request video data to the database server 52 through the set-top box, and the database server transmits the digital video data through the requesting set-top box to the requesting house hold (see col.4, lines 37-65). It would have been obvious to further modify the EPG system of Candelore by realizing the EPG system of Candelore with the means for users to request for desired digital video data (program), as taught by Dunn, in order that users can request for desired programs

Regarding claim 26, the claimed limitations of claim 26 are accommodated in the discussions of claim 10 above.

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Regarding claim 28, the claimed limitations of claim 28 are accommodated in the discussions of claim 12 above.

6. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Lownes et al (US 6,137,539).

Regarding claim 13, Candelore fails to disclose wherein the at least one auxiliary interface supports isochronous communication. Lownes et al teach in Fig.1A&1B a method for displaying status and controlling attached peripheral devices in television receivers that operate according to the digital television standard, comprising VCR 113 connected to the set-top box set-top box 90 through the IEEE-1394 digital interface which supports isochronous communication (see col.3, lines 35-67). It is pertinent to point out that in col.3, line 67 of Lownes, Lownes teaches IEEE-1394 digital interface which supports isosynchronous data transfer. Examiner reads the isosynchronous data transfer as isochronous data transfer, since the IEEE-1394 digital interface is well known to support isochronous communication, not isosynchronous data transfer.

It would have been obvious to modify Candelore by connecting the set-top box 210 of the program data receiver 110 (fig.1&2) and digital video recorder/player 140 (Fig.1) of Candelore with IEEE 1394 digital interface so that Candelore can support isochronous data communication.

Regarding claim 14, Candelore fails to disclose wherein the at least one auxiliary interface supports asynchronous communication. Lownes further teaches method for displaying status and

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controlling attached peripheral devices in television receivers that operate according to the digital television standard, comprising VCR 113 connected to the set-top box set-top box 90 through the IEEE-1394 digital interface which supports asynchronous communication (see col.3, lines 35 to col.4, line 7).

It would have been obvious to further modify Candelore by connecting the set-top box 210 of the program data receiver 110 (fig.1&2) and digital video recorder/player 140 (Fig.1) of Candelore with IEEE 1394 digital interface so that Candelore can support asynchronous data communication.

Regarding claim 15, Candelore fails to disclose wherein the at least one auxiliary interface supports synchronous communication. Lownes further teaches method for displaying status and controlling attached peripheral devices in television receivers that operate according to the digital television standard which supports synchronized processing (see col.4, lines 32-45). It would have been obvious to further modify Candelore by applying the synchronous processing principle of Lownes to Candelore in order, for example, to synchronize the corresponding audio and video signals of Candelore, and it would have been that the recorder would record the synchronized audio and video signals received through the recorder interface, thereby supporting synchronous communication.

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Regarding claim 16, the claimed limitations of claim 16 are accommodated in the discussions of claim 13 above. As discussed in claim 13, VCR 113 and set-top box 90 are connected through IEEE 1394 digital interface which supports isochronous communication.

Regarding claim 17, the claimed limitations of claim 17 are accommodated in the discussions of claim 14 above. As discussed in claim 13, VCR 113 and set-top box 90 are connected through IEEE 1394 digital interface which supports asynchronous communication.

Regarding claim 18, the claimed limitations of claim 18 are accommodated in the discussions of claim 15 above.

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Lawler et al (US 5,699,107).

Regarding claim 21, Candelore fails to disclose wherein the EPG processing device comprises a user viewing monitor that keeps track of and compiles a user viewing history and set of user preferences. Lawler et al teach in Fig.1 a system for informing a user of an interactive viewing system that a selected program is available for viewing and a system for allowing a user to select a future program for later reminding comprising local area network (LAN) 24 that includes multiple computer servers 26 for performing various interactive system applications or functions. The servers 26 which store and process information at the headend, may include, for

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example, service and application servers (SAS) 30, continuous media servers 32 and electronic program guide data servers 34. The service and application servers 30 processes interactive service requests from subscribers and provides services and applications associated with, for example, network monitoring functions. The service and application servers 30 may also contain a subscriber database. The subscriber database may store subscriber specific information such as each user's identity, a login code which identifies different users, a user's viewing preferences and history. The various functions of the servers 26 may be combined so as to be carried out by a single server (see col.4, line 27 to col.5, line 12).

Providing a viewing monitoring means that keeps track of user viewing history and set of user preferences provides the desirable advantage of making available to a service provider the mechanism to track what type of programs viewers watch more often so that the service provider could then target such viewers with such similar programs.

It would have been obvious to modify Candelore by realizing Candelore with a viewing monitoring means that keeps track of user viewing history and set of user preferences, since providing a viewing monitoring means that keeps track of user viewing history and set of user preferences provides the desirable advantage of making available to a service provider the mechanism to track what type of programs viewers watch more often so that the service provider could then target such viewers with such similar programs.

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Knudson (US 6,016,141) teach program guide systems that allow pay programs to be promoted as part of one or more packages

8. Any inquiry concerning this communication or earlier communications from this examiner should be directed to Christopher Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on Tuesday to Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Monday.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any response to this action should be mailed to:

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or faxed to:

(703) 872-9314, (for formal communications intended for entry)

and (for informal or draft communications, please label "PROPOSED" or "DRAFT")


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application should be directed to Customer Service whose telephone number is (703) 306-0377.


COO

10/31/01


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